

## **Abstract of the Invention**

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A system handles both reception signals collected via an antenna and transmission signals generated by a communication station for transmission via the antenna. The system includes a cryostat, a receive path carrying the reception signals and disposed in the cryostat, and a transmit path carrying the transmission signals. The receive path and the transmit path are coupled between the system and the antenna and between the system and the communication station. Accordingly, the receive path is duplexed with the transmit path such that the front-end system has a first single input/output connection for coupling the front-end system to the antenna and a second single input/output connection for coupling the front-end system to the communication station.